

Appln No 09/641,449
Docket No. 6169-179
Reply to Office Action of August 26, 2003

IBM Docket No. GB9-2000-0034 US1

REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of August 26, 2003 (Office Action). As this response is timely filed within the three-month shortened statutory period, no fee is believed due.

In paragraph 1 of the Office Action, the abstract was objected to for minor informalities. The Applicants have provided a replacement abstract correcting several typographical errors. Accordingly, withdrawal of this objection is respectfully requested.

In paragraph 2, the disclosure has been objected to for several informalities. The Applicants have provided amended replacement paragraphs correcting most of the informalities cited by the Examiner. The Applicants note, however, that the page and line numbers used in the Office Action do not appear to match those of the Application as filed. While the Applicants have attempted to make the appropriate corrections, due to the inconsistency of the page and line numbers, the Applicants were unable to locate and correct the word "callers" to which the Examiner referred. In any case, the Applicants have provided replacement paragraphs for the other noted informalities though the page and line numbers do not correlate with those specified in the Office Action. Accordingly, withdrawal of this rejection is respectfully requested.

In paragraph 3, claim 6 has been objected to for minor informalities. The Applicants have amended claim 6 as suggested by the Examiner. Withdrawal of this objection is respectfully requested.

In paragraphs 4-5, claims 1, 2, 5, and 6 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,615,296 to Stanford *et al.* (Stanford). In paragraphs 6-7, claims 3 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Stanford in view of U.S. Patent No. 6,192,344 to Lee *et al.* (Lee). In response, the Applicants have amended claim 1 to clarify that the speech technology modules of the Applicants' invention are software-based and can generate speech and/or recognize speech.

Prior to addressing the rejections on the art, a brief review of the Applicants' invention is appropriate. The present invention provides an interactive voice response (IVR) system that includes a plurality of speech technology modules for recognizing

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and/or generating speech. For example, the present invention can include a plurality of speech recognition engines and/or text-to-speech engines. Each of the speech technology modules can be suited for a particular interaction environment property, such as the locale of a caller or the language spoken by the caller. Based upon the environment property of an interaction with a caller, a speech technology selection module can select one of the speech technology modules from the plurality of the modules to be used by the application. As such, the present invention can select a speech technology module that is particularly suited to the interaction with the caller.

Turning to the rejections on the art, claims 1, 2, 5, and 6 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Stanford. Stanford teaches a speech recognition system capable of performing speaker-independent, continuous-speech recognition. Stanford utilizes context switching to modify the active vocabulary used by the speech recognition system.

Significantly, Stanford, in contrast to the present invention, does not provide for a plurality of software-based speech technology modules. Rather, Stanford provides a plurality of "Digital voice files" and "prompt display files". That is, while the Applicants' invention provides for a plurality of speech technology modules capable of recognizing speech and generating speech (i.e. speech recognition engines and/or text-to-speech engines), Stanford discloses only a single speech recognition engine. The speech recognition system of Stanford can dynamically modify the active grammar and activate WAV files based upon context, but does not include a plurality of speech technology modules that are capable of recognizing or generating speech as recited in claim 1.

Further, Stanford does not teach a speech technology selection module. Rather, Stanford discloses an Application Programming Interface (API) through which various functions can be accessed. Unlike the speech technology selection module of the Applicants' invention, the API of Stanford cannot operate in an automated fashion to perform "intelligent" switching between multiple speech technology modules that generate and/or recognize speech. Instead, as illustrated by the description cited by the Examiner in column 12, lines 6-21 and in Figures 1-3, Stanford merely selects which one of a plurality of stored digital voice responses are to be announced.

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As such, Stanford does not teach or suggest that multiple speech technology modules can be used or that an IVR can select among the modules according to properties of caller interactions with the IVR. Accordingly, withdrawal of the 35 U.S.C. § 102(b) rejection with respect to claims 1, 2, 5, and 6 is respectfully requested.

Claims 3 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Stanford in view of Lee. The Examiner concedes that Stanford does not explicitly disclose an environment property of a language identifier and a regional identifier. The Examiner contends, however, that it would have been obvious to one having ordinary skill in the art to include language identifiers and regional identifiers as taught by Lee in the voice response system of Stanford for the purpose of providing an efficient messaging system for different languages without re-compiling the messaging program or re-writing messages in another language.

Lee suffers from the same deficiency as Stanford. Like Stanford, Lee fails to disclose a system having a plurality of speech technology modules for generating speech and/or recognizing speech. Lee teaches that a single language server can be dynamically configured to process different languages without having to re-compile the program for another language.

Notably, Lee's teaching of a single language server actually teaches away from the use of multiple speech technology modules as taught by the present invention. Accordingly, one attempting to solve the problems addressed by the Applicants' invention would not turn to Lee for a solution. As neither Stanford, Lee, nor any combination thereof teach or suggest the Applicants' invention as claimed, withdrawal of the 35 U.S.C. § 103(a) rejection with respect to claims 3 and 4 is respectfully requested.

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The Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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